

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Morris Lithium Battery Fire - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: POLREP #3
Morris Lithium Battery Fire
C5TN
Morris, IL
Latitude: 41.3631780 Longitude: -88.4120145

To: Doug Ballotti, EPA R5
Tom Short, EPA R5
Sam Borries, U.S. EPA
Jason El-Zein, U.S. EPA
Mike Ribordy, EPA R5
HQ EOC, U.S. EPA
Mark Johnson, ATSDR
Jamie Getz, EPA R5
Rachel Linduska, EPA R5
Todd Goeks, NOAA
Robert Burr, U.S. Department of Interior
Michael Salviati, USCG MSU Chicago
Darryl Drago, FEMA
Bobby Elzie, Illinois EPA
Todd Retting, Illinois DNR
John Kim, Illinois EPA
Harold Damron, Will County EMA
Thomas Casey, Will County Health
Joe Shroeder, Grundy County EMA
Michelle Pruijm, Grundy County Health Dept
Tracey Steffes, Morris Fire Department
Alicia Steffes, Morris Police Department
Anne Rowan, US EPA

From: Leonard Zintak, On-Scene Coordinator
Date: 7/3/2021
Reporting Period: 7/2/2021 - 7/3/2021

1. Introduction

1.1 Background

Site Number:	C5TN	Contract Number:
D.O. Number:		Action Memo Date:
Response Authority:	CERCLA	Response Type:
Response Lead:	EPA	Incident Category:
NPL Status:	Non NPL	Operable Unit:
Mobilization Date:	6/29/2021	Start Date:
Demob Date:		Completion Date:
CERCLIS ID:		RCRIS ID:
ERNS No.:		State Notification:
FPN#:		Reimbursable Account #:

1.1.1 Incident Category

Emergency Response

1.1.2 Site Description

The site is located 900 E Benton Street in Morris, Grundy County, Illinois. At approximately 12:00 pm on June 29th, Morris Fire Department responded to a fire at the old Federal Paper Board building, now owned by Superior Battery Inc., which was being used to store a large quantity of lithium batteries, solar panels and other waste electronics. Approximately 184,000 lbs of lithium batteries are thought to have been stored in the building. Because the fire contains lithium, the Morris Fire Department initially made the decision to let the fire burn itself out. Water and fire fighting foam can accelerate the fire and cause environmental damage.

1.1.2.1 Location

900 East Benton Street, Grundy County, Morris, Illinois.

1.1.2.2 Description of Threat

The Superior Battery building housed several tons of lithium batteries that have been partially consumed in the fire. The smoke plume threatened to release contaminants into the atmosphere potentially exposing nearby residents to hazardous substances including particulates, metals, and volatile organics.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

On-Scene Coordinators (OSCs) Leonard Zintak and Lauren McCarrell mobilized to the site on June 29,

2021. On June 29, 2021, at approximately 14:00 hours, EPA activated the Superfund Technical Assessment and Response Team (START) to respond to the incident.

According to the Morris Fire Chief, the fire was discovered at approximately 1200 hours on June 29, 2021. The Grundy County Emergency Management Agency ordered an emergency evacuation of residents within a 1/2 mile radius of the site. The evacuation order was lifted on 7/2/2021.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

2.1.2 Response Actions to Date

7/3/21 Update

The evacuation order has been lifted as of July 2 at 4 pm. Fire Department monitoring of the site building and the smoldering batteries continues. Occasional occurrences of visible smoke above the hot spot areas in the building are expected to continue for days or weeks. US EPA has four stationary air monitoring stations on the site perimeter. Roving air monitoring is occurring on a 24-hour basis in the neighborhood within two blocks of the site. US EPA and Illinois EPA inspected the storm sewer outfall into the I&M Canal located approximately 3 blocks southeast of the site. There was no site runoff visible. IEPA and the City of Morris have inflatable air bladders staged near the site to plug the storm sewers if firefighting water or rain water begin to accumulated on site. Plans are underway to conduct wipe sampling in the neighborhood on Monday.

7/2/21 Update

The site continues to be monitored by the Fire Departments for flare ups that could occur. US EPA will continue to air monitor while reducing the monitoring footprint closer to the site perimeter. Four air monitoring stations connected to viper are streaming data to the OSC portal. These parameters include: VOCs, LEI, CO, H₂S, and O₂, total particulates, acid gases/HF.

START has also collected a second round of air samples with Gillian Pumps collecting total metals and alkali dust. Summa canisters were also being collected and sent to a laboratory for analysis.

In anticipation of lifting the evacuation for Morris residents, US EPA continues to reduce the stationary air monitoring footprint to the site perimeter. Also mobile air monitoring will be conducted 24/7 through the July 4 holiday weekend and likely into next week.

Additionally, US EPA has been working with Illinois EPA and the CST, who also are collecting air monitoring data.

6/29 - 7/1 Summary

The Morris Fire Department and numerous other fire departments from across northern Illinois are on site monitoring the fire but are not suppressing the fire with water or fire fighting foam due to the possibility of a violent reaction with the lithium batteries. A mandatory evacuation was issued for all residents within a 1/2 mile radius of the Superior Battery building. The evacuation order was then extended until 4 p.m. on July 2, 2021. The evacuation center is located at First Christian Church, 455 W. Southmor Road in Morris.

US EPA deployed two OSCs and eight START contractors to provide 24-hour, round-the-clock air monitoring and sampling support to the Unified Command. The Morris Fire Chief is the incident commander.

US EPA consulted with Agency for Toxic Substances and Disease Registry (ATSDR), the Illinois Department of Public Health (IDPH), and the Grundy County Health Department to establish action levels/re-occupancy levels for air monitoring data.

The Interagency Modelling and Atmospheric Assessment Center (IMAAC) provided plume models for the release. This model predicted potential plumes trending to the northeast and southeast from the site, with hazardous, very hazardous, and unhealthy soot levels as well as acid gas/hydrogen fluoride levels that potentially could have extended into residential neighborhoods. Real-time air monitoring data did not show any elevated levels of contaminants in the residential areas outside of the evacuation area above action levels.

US EPA START contractors are performing site perimeter and community air monitoring for volatile organic compounds (VOCs), lower explosive limit (LEL), carbon monoxide (CO), hydrogen sulfide (H₂S), oxygen(O₂), particulates, and acid gases/hydrogen fluoride. Illinois National Guard Civil Support Team members are also providing air monitoring support for the response by deploying AreaRAEs to monitor VOCs, LEL, CO, H₂S, and O₂.

Due to the lithium batteries contained within the building, the Morris Fire Department initially planned to let the fire burn itself out. After consulting with experts about lithium battery fire fighting techniques, the fire department decided to apply a dry chemical agent called 'Purple K' with a small amount of water to suppress the fire. At approximately 14:00 on 6/30/21, the fire department removed part of the building wall and gained access to the fire from this location. They discovered a 30 by 40 foot area of burning batteries and applied the 'Purple K' product at approximately 15:30. The Purple K was unsuccessful in extinguishing the fire. After observing no adverse reaction to the application of Purple K and water, the fire department continued to apply water only to the burning area. They applied high flow water to the fire and once the batteries were cooled, the fire department applied Portland cement at approximately 18:00. The 30 by 40 foot battery area was covered with Portland cement as well as a few hot spots within the building. The fire department completed application of cement at approximately 23:00 on 6/30/21 and have not observed any significant smoke from the batteries since. Solar panels, lead/acid batteries, nickel cadmium batteries, and roofing materials were also reportedly inside the building. It is likely that the roofing materials burned in the fire.

Illinois EPA is assessing the storm drains and outfalls to the I&M Canal and the Illinois River for potential runoff. None has been detected so far.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Jin Zheng, the president of Superior Battery Inc., has been identified as the property owner.

2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

2.2 Planning Section

2.2.1 Anticipated Activities

US EPA will continue to provide 24-hour air monitoring support during the response while there is a chance of fire/chemical reactions on site.

US EPA will also collect outdoor ambient air samples for laboratory analysis of metals (including lithium), alkali dusts, and volatile organic compounds (VOCs). US EPA plans to collect samples including surface wipe samples on residential and public property in the residential areas around the site. Surface water and soil samples may also be collected as needed.

2.2.1.1 Planned Response Activities

US EPA will continue to provide 24-hour air monitoring support during the response until the hot spots have cooled and site conditions are stable.

US EPA will collect outdoor (ambient) air samples for laboratory analysis of metals (including lithium), alkali dusts, and volatile organic compounds (VOCs).

2.2.1.2 Next Steps

Air monitoring and sampling will continue through the next week.

2.2.2 Issues

Inside the building, some of the lithium batteries that have been covered with cement continue to smolder and these "hot spots" are being monitored with infrared (themal) cameras.

2.3 Logistics Section

No information is available at this time

2.4 Finance Section

2.4.1 Narrative

The START contractor ceiling is currently \$50,000.00. Additional START funding is planned to match the level of support required.

Estimated Costs *

	Budgeted	Total To Date	% Remaining	% Remaining
Extramural Costs				
TAT/START	\$50,000.00	\$0.00	\$50,000.00	100.00%
Intramural Costs				
Total Site Costs	\$50,000.00	\$0.00	\$50,000.00	100.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

Illinois Mutual Aid Box Alarm System (MABAS) is providing a safety officer

2.5.2 Liaison Officer

2.5.3 Information Officer

Lieutenant Nick Doerfler at Coal City Fire Protection District

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

EPA Region 5

U.S. DOT

US Coast Guard

ATF
Illinois EPA
Illinois State Police
Illinois Emergency Management Agency
Illinois National Guard 5th Civil Support Team
Illinois Mutual Aid Box Alarm System
Grundy County Sheriff
Grundy County EMA
Grundy County Health Department
Morris Fire Dept
Morris Police Dept
Morris Mayor's Office
Red Cross

4. Personnel On Site

EPA - 2
START - 9
Illinois EPA - 1
Morris Fire Dept
Morris Police Dept
Numerous Fire and Police Depts from Northern Illinois

5. Definition of Terms

No information available at this time.

6. Additional sources of information

6.1 Internet location of additional information/report
response.epa.gov/morrislithiumbatteryfire

6.2 Reporting Schedule

It is anticipated that POLREPS will be provided at 24 hour intervals

7. Situational Reference Materials

response.epa.gov/morrislithiumbatteryfire

NO
TRESPASSING

CITY
KEEP OUT
MORRIS



